CITY OF
LADUE

City Hall

To: Honorable Nancy Spewak, Mayor
Members of the City Council

From: Stacey Mann, City Clerk

Date: March 23, 2022

Re: Report to City Council

Trustee Meeting

The next Trustee Meeting is scheduled for Thursday May 12th at 6PM.
Attorney, Drew Weber, will be provide a power point presentation on the role of the neighborhood trustee.

April City Council Meeting

The April City Council Meeting has been moved to April 25th, 2022, at 4PM. Results from the April 5th General Municipal election will be announced at this meeting, and elected officials sworn in.

Custodian of Records – Records Requests

The city received and processed nine records requests under the Missouri Sunshine Law from January 1st, 2022 – March 23rd, 2022.

Deer Distance Sampling Population Estimate

Deer population surveys were conducted February 20th – 23rd, and the results of those surveys have been attached for your review. Deer population in Ladue is currently estimated to be 43% higher than the first estimate in 2016, and 10.5% over the 2020 estimate. These are pre-fawning numbers with an expected increase in May and June.

April 5th General Municipal Election

The St. Louis County Board of Elections asked the City of Ladue to utilize Council Chambers at City Hall as a polling location for the April 5th, 2022, General Municipal Election. In addition, to City Hall, the St. Louis County Library Headquarters in Ladue will also serve as a polling location. Residents may vote at any polling location throughout the County.

Business Licenses

The City Clerk's office issued the following business licenses for the month of February/Early March:

Frontenac Nail Lounge	9838 Clayton Road	Service/ Sq. Feet	2/28/2022
Oberle Risk Strategies, LLC	8820 Ladue Rd, Suite 302	Service/ Sq. Feet	2/25/2022
The Caregiver Club	551 Barnes Rd	Home Based -	2/28/2022
Anderson Hoagland & Co	9811 S Forty Drive, Suite 200	Service/ Sq. Feet	3/14/2022

Please contact me with any questions you may have at 314-993-3439 or smann@cityofladue-mo.gov

SUMMARY REPORT

Deer Distance Sampling Population Estimate

Ladue, Missouri

by

White Buffalo, Inc.

9 March 2022

Introduction/Methods

The city of Ladue is 8.6 mile^2 and bisected by I-64 running east/west. There are approximately 3.5 mile^2 in the southern section of the city with the remaining area located north of I-64. We often delineate areas within a community to better describe deer density variability if it exists.

We used a population estimation method called Distance Sampling. This approach is based on the premise that you can determine the width of a transect traveled by creating a detection probability from the field observations (i.e., number of deer and distance from the transect). In simple terms, the software program projects the area sampled and then integrates the number of deer observed in that area to determine density.

We delineated a non-overlapping spotlighting route on a City road map (Figure 1). Sargent Dennis Pohlmann, Ladue Police Department, and Ladue Public Works Superintendent Scot Bollinger conducted the survey. Spotlighting surveys were conducted from ~22:00–05:00 h on 20–23 February 2022. The transect was ~23.2 miles long and surveyed once each evening.

While driving 10 mph spotters searched their respective side of the road with 400,000 candlepower spotlights. Upon sighting deer, the number in each social group, age and sex of the individuals, and the perpendicular distance to the group was recorded. These data were then entered into a software program (Distance-Version 7.3) that estimates the deer density.

Results/Discussion

The survey team counted from 14–64 deer (6–18 groups of deer) on the 4 transect replicates (See Figure 1 for the full survey route). The weather pattern was changing during the survey, transitioning from warm and stable to cold and windy. The data set from the 4th survey night is excluded from the estimate calculation. During this survey replicate only 6 groups of deer were observed. This is 65% fewer than the previous 3 survey replicates and an outlier in the data set. Deer were observed from 5 to 132 yards from the road, with most observations occurring less than 100 yards. The mean sighting distance was ~54 yards, nearly the same as the 2018 survey and 10 yards shorter than the 2020 mean of ~64 yards. The average cluster size was 3.5, a 16% increase over the 2020 mean of 3.02. The estimated density for the municipality is ~25 deer/mi^2 (95% Confidence interval: 17–77 deer/mile^2). Based on observations during the 2022 survey we estimate the deer population, at the time of the survey, to be ~215 animals (25

deer/mile^2 X 8.6 mi^2 = 215) with a range of 146–318. The complete observations sheets are attached as Appendix A.

Deer observed north of I-64 appear to have expanded beyond the ~2 square mile area proximate to Bogey Golf Club and Saint Louis Country Club, where observations were concentrated during surveys conducted in 2016 and 2017. In an effort to better demonstrate where deer appeared during the Distance Sampling Survey, maps were generated by plotting the number of deer in each group along with general location of observations. Each replicate of observations are attached as Figure 2, 3, 4, and 5 for the samples conducted during 20–23 February 2022. Figure 6 depicts the total observations during 20–23 February 2022. Density estimates were generated separately for the areas of the municipality bisected north/south of I-64 in an effort to provide a direct comparison to deer population estimates conducted in previous years. Deer densities were ~37% lower south of the I-64 bisection and 13% higher north when compared to the 2020 estimate.

Deer were observed on 9.4 miles of the transect south of I-64. In this area, deer appeared to be evenly distributed with numerous observations occurring on Litzsinger Road, Old Warson Road and Trent Road. The estimated density for the portion of the municipality south of I-64 (where deer were observed; ~3.5 mile^2) was 22 deer/mile^2 (95% Confidence interval: 12–41 deer/mile^2). Therefore, we estimated that there were ~77 deer (22 deer/mile^2 X 3.5 mile^2 = 77 deer) inhabiting this area with a range of 42–143 at the 95% confidence interval. These numbers are 37% below the 2020 population estimate of 122 deer. Please be advised that these estimates are pre-fawning with an expected increase in May and June.

There was a slight increase in observations north of I-64 over the 2020 survey, a trend that has continued since 2017. Not only were more observations made, but the distribution of observations continues to increase as well. Numerous observations occurring on Barnes Road, Log Cabin Lane, Overhills Drive, and Tirrill Farms Rd. In addition, the expansion appears to be spreading to the east with observations occurring proximate to McKnight Road. The estimated density for the portion of municipality north of I-64 (where deer were observed; ~4.88 mile^2) was 23.6 deer/mile^2 (95% Confidence interval: 13.2–42 deer/mile^2). Therefore, we estimate that there were ~115 deer (23.6 deer/mile^2 X 4.88 mile^2 = 115 deer) inhabiting this area with a range of 67–205 at the 95% confidence interval during the time of the survey. This is an increase of 10.5% over the 2020 estimate of 104 deer. Once again, these are pre-fawning numbers with an expected increase in May and June.

It should be noted that the combined data set provides a more robust estimate than the bisected estimates. In earlier estimates it did not make sense to pool the data as there was substantial variability between observations made in the northern part of the municipality and the south. This year no such variability existed and the separation of data is only provided so comparisons can be made with previous years. The complete data set provided an estimate which was slightly higher than the north and south combined.

The demographics of the population were ~35.4% yearling and adult females, ~37% fawns, 13.8% yearling and adult males, and 13.8% undetermined based on observations during the survey. The data indicates a recruitment rate of approximately 1.04 fawns per adult doe during 2022. This would be considered low in comparison to the past estimates and .5 fawns per doe below the year 2020 (1.5 fawns/doe).

The deer population in Ladue is currently estimated to be ~43% higher than when we initiated the first deer population estimate in 2016 (~150 deer) Figure 7. An initial deer population reduction was experienced after the commencement of the archery program in 2017. The estimated deer population declined significantly between the 2017 and 2018 surveys, but appears to have rebounded, and currently exceeds the 2017 estimate.

Figure 1. Ladue, MO Delineated Distance Sampling Route 20–23 February 2022.

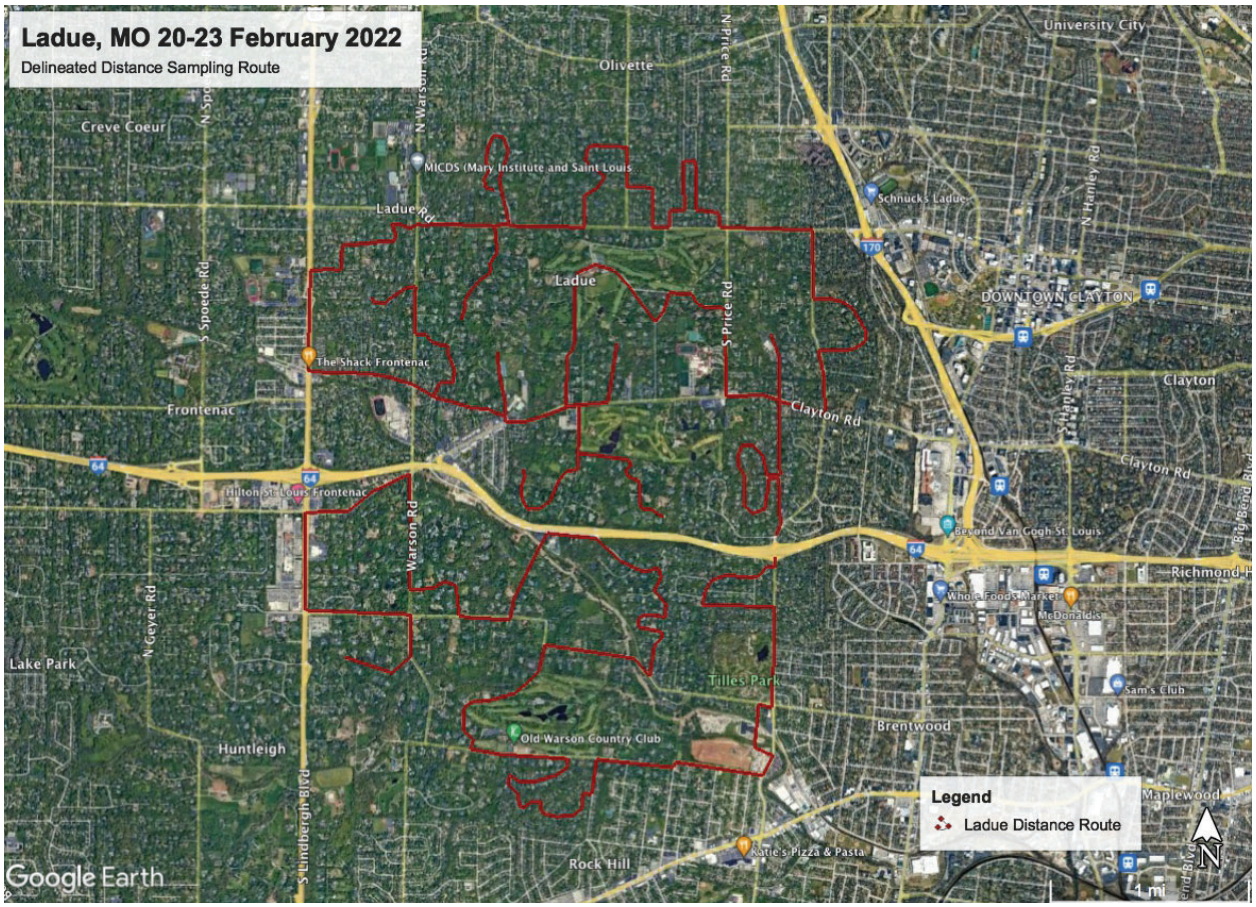


Figure 2. Distance Sampling observations 20 February 2022 Ladue, MO

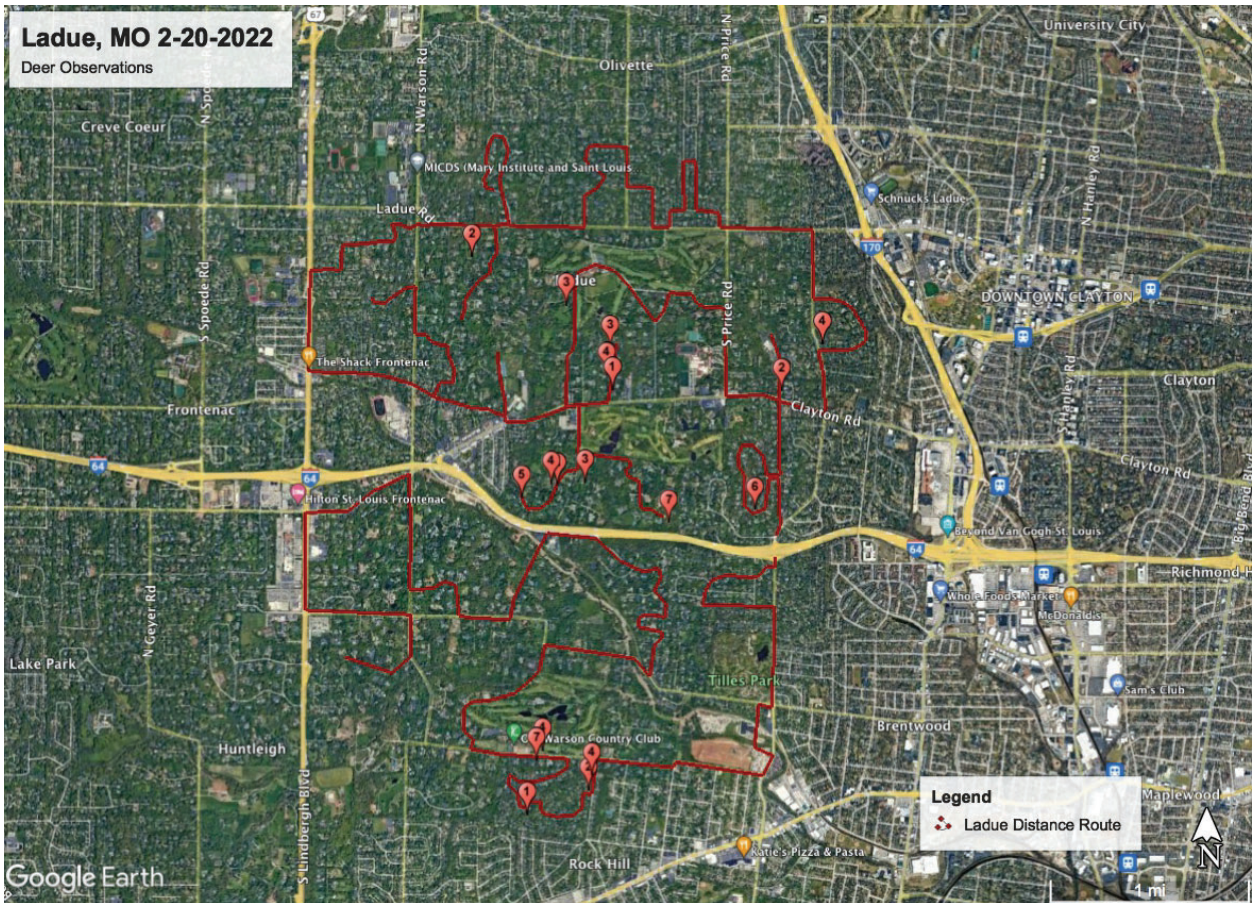


Figure 3. Distance Sampling Observations 21 February 2022 Ladue, MO

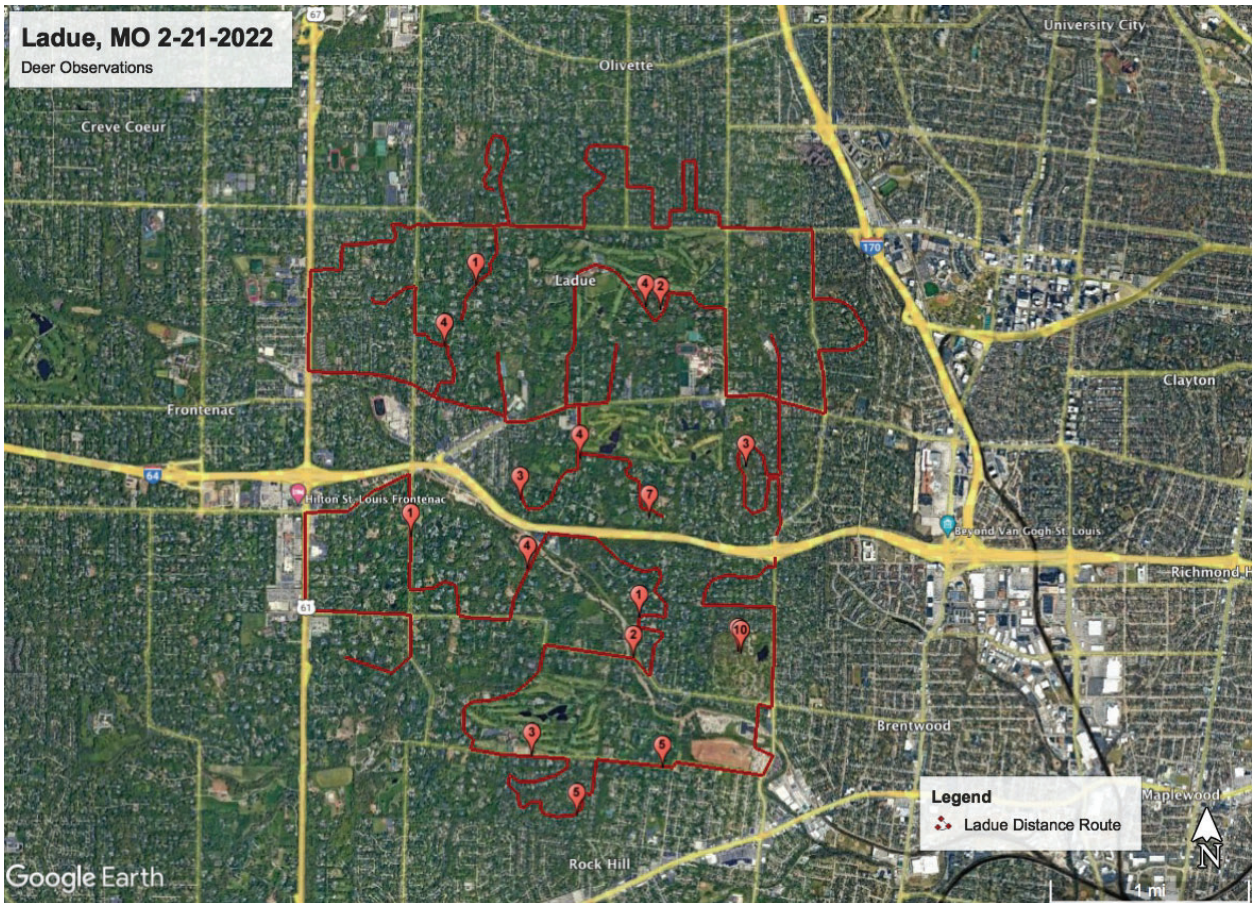


Figure 4. Distance Sampling Observations 22 February 2022 Ladue, MO

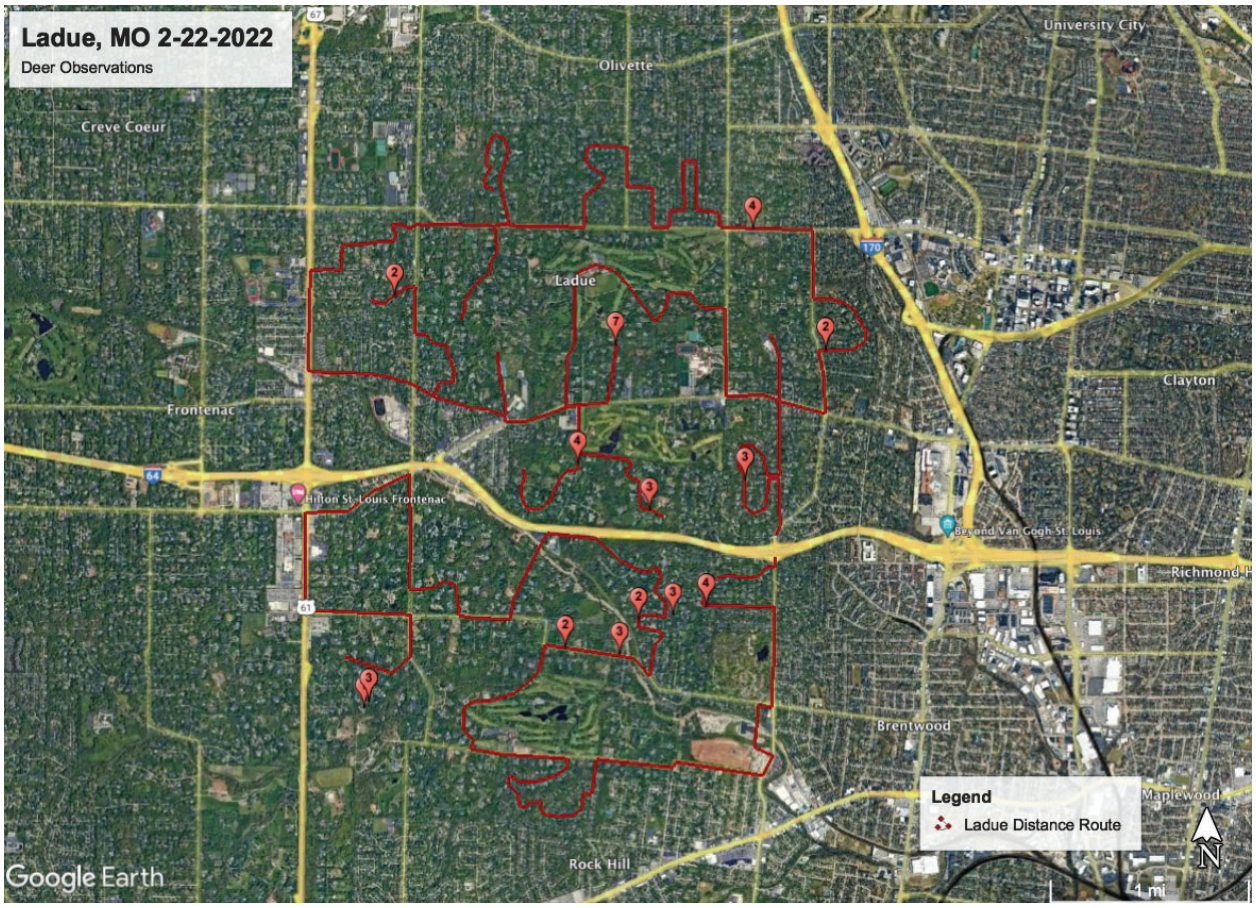


Figure 5. Distance Sampling Observations 23 February 2022 Ladue, MO

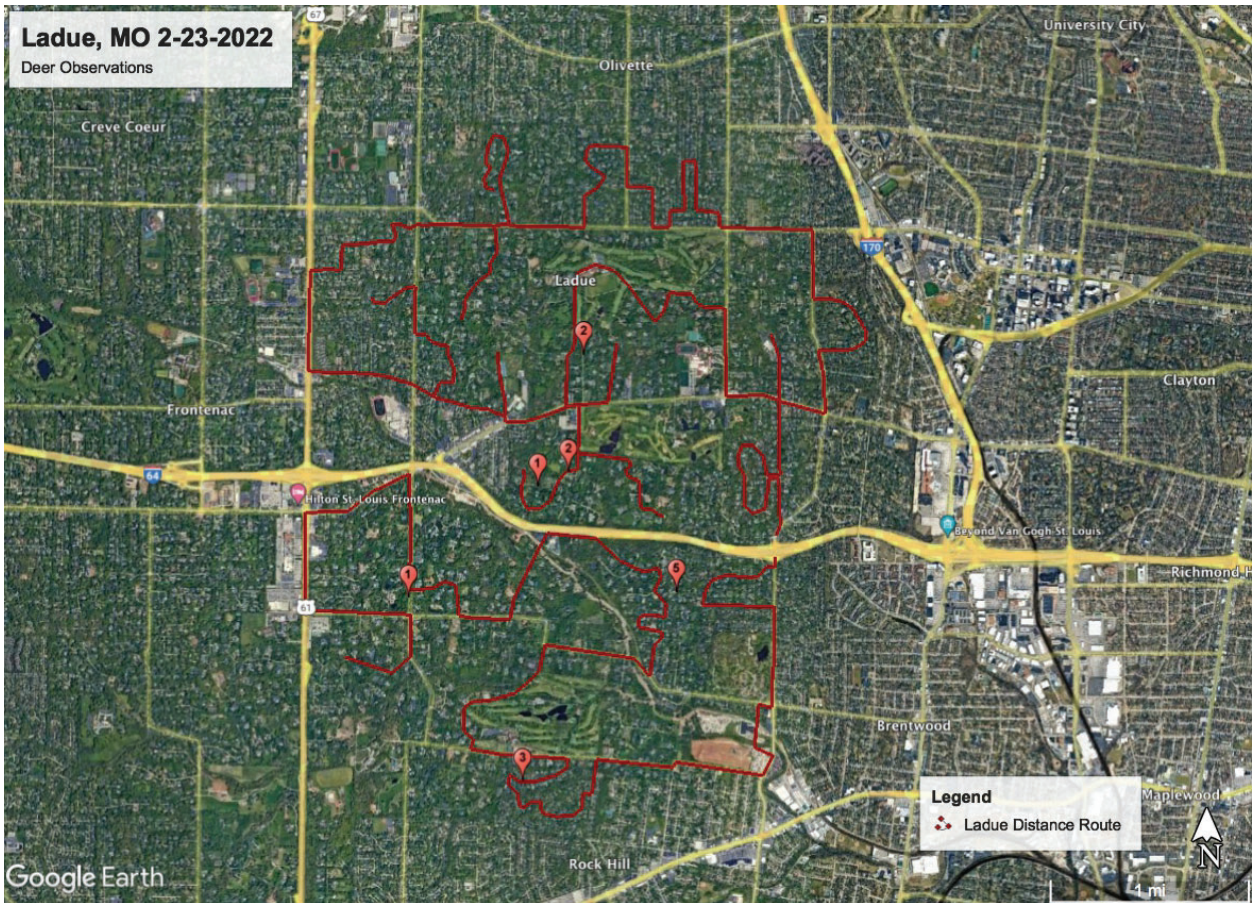


Figure 6. Distance Sampling Observations Combined 20–23 February 2022 Ladue, MO

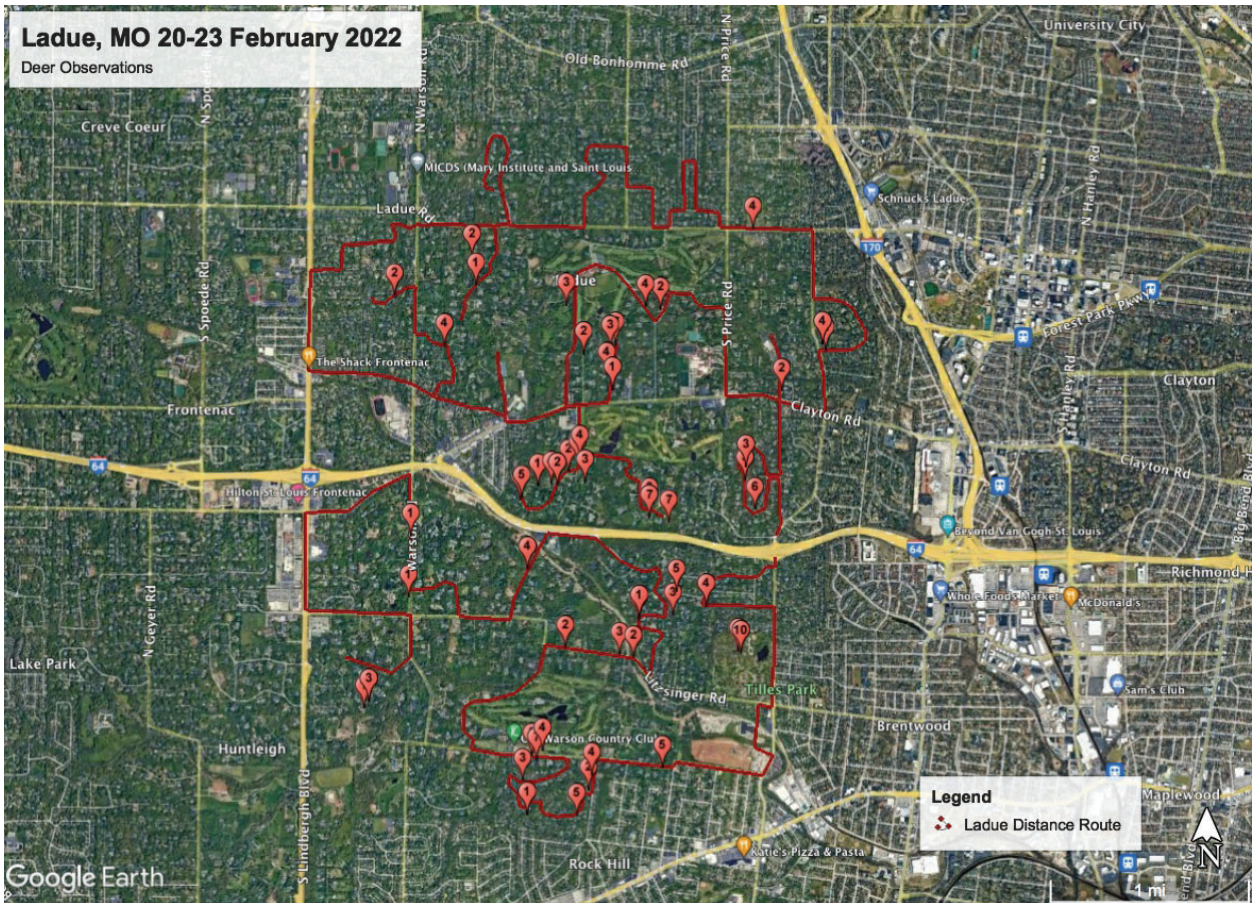
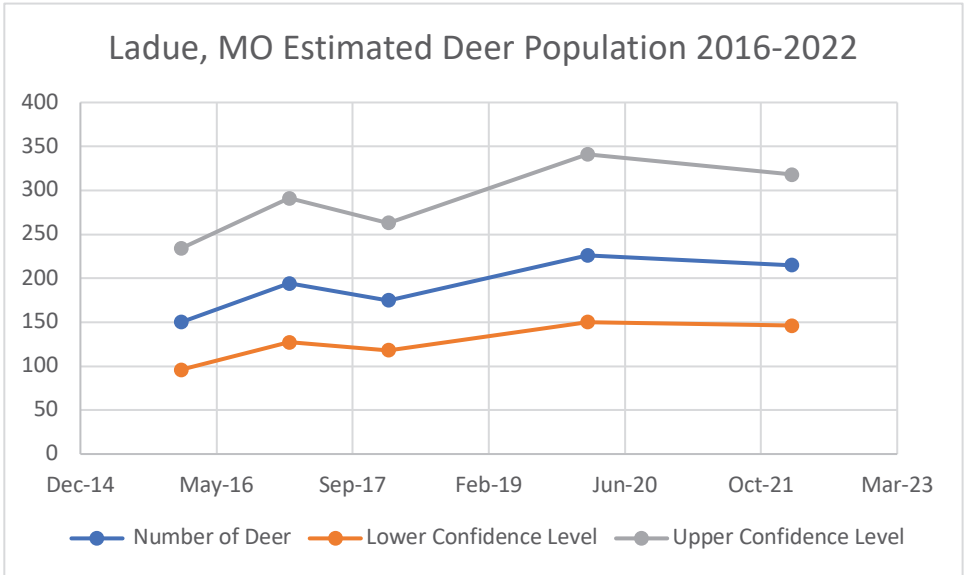


Figure 7. Ladue, MO Estimated Deer Population 2016–2022



Appendix A. Distance Sampling Observations 20-23 February 2022

Project: Ladue, MO **Date: 02/20/2022**

Time conducted: 2000–0400 **Transect Length: 23.2 mi**

Weather (Temp, Wind, Cloud Cover): 54 degrees Fahrenheit, 2-4 mph, and clear

# of deer/group	A-Female/Fawn/YM/A-Male	Perpendicular distance (yd)	Location
3	2 AF, 1 F	63	911 Tirrill Farms
4	3 AF, 1F	18	939 Tirrill Frams
1	1 F	5	950 Tirrell Farms
7	3AF, 4F	38	76 Overhills
3	1 AF, 2 F	118	1230 Log Cabin Ln
4	3 AM, 1F	53	9 Log Cabin Drive
2	2AM	69	9 Log Cabin Drive
5	3 AF, 2 F	67	41 Log Cabin Drive
3	3 AM	97	601 Barnes
2	1 AF, 1 F	43	938 Lay Road
6	1 AF, 1 UKN	105	45 Fair Oaks
4	4 AM	29	4 Upper Dromora
2	2 AF	40	9630 Ladue Road
4	1 AF, 3 F	59	1225 Des Peres
2	2 AF	15	9801 Copper Hill
1	1 AF	102	1618 Copper Hill
7	3 AF, 4 F	45	9840 Old Warson
4	2 AF, 2 F	25	9840 Old Warson

Project: Ladue, MO **Date: 2/21/2022**

Time conducted: 2000–0400 **Transect Length: 23.2**

Weather (Temp, Wind, Cloud Cover): 59 degrees Fahrenheit, 3-6mph, and clear

# of deer/group	A-Female/Fawn/YM/A-Male	Perpendicular distance (yd)	Location
7	3 AF, 4 F	25	56 Overhills
4	2 AF, 2 F	132	1200 Log Cabin Ln
3	3 AF	66	41 Log Cabin Drive
4	2 AF, 2 F	41	23 Braeburn
2	2AM	25	18 Pine Valley
3	3AM	88	68 Fair Oaks
1	1AM	91	25 Upper Ladue
4	2 AF, 2 F	41	4 Picardy
11	4 AF, 7 F	49	9551 Litzsinger
5	3 AM, 2 UNK	18	9756 Old Warson
5	1 AF, 4 F	15	9840 Northbridge
4	2 AF, 2 F	68	9859 Waterbury
2	1 AF, 1 UNK	89	9701 Litzsinger
1	1AM	20	25 Danfield
4	4 UNK	100	1910 Log Cabin Ln
1	1 AF	25	8 Warridge
3	2 AF, 1 F	42	9840 Old Warson

Project: Ladue, MO **Date: 02/22/2022**

Time conducted: 2000–0400 **Transect Length: 23.2**

Weather (Temp, Wind, Cloud Cover): 31 degrees Fahrenheit, 6mph, and cloudy

# of deer/group	A-Female/Fawn/YM/A-Male	Perpendicular distance (yd)	**Location**
7	3 AF, 4F	25	918 Tirrill Farms
3	1 AF, 2 F	57	56 Overhills
4	2 AF, 2 F	25	1220 Log Cabin Ln
3	3 UNK	60	19 Fair Oaks
2	2AM	42	4 Upper Dromora
4	2 AF, 2 F	110	9125 Ladue
2	1 AF, 1 F	24	16 Dogwood
4	2 AF, 2 F	33	27 Ellsworth
2	2 F	20	9741 Litzsinger
3	3 UNK	101	9711 Litzsinger
4	2 F, 2 UNK	102	9711 Litzsinger
2	1 AF, 1 UNK	25	25 Danfield
3	1 AF, 2 F	44	5 Trails End Court
3	1 AF, 2 UNK	66	6 Somerset Downs
1	1AM	27	39 Somerset Downs

Project: Ladue, MO **Date: 2/23/2022**

Time conducted: 2000–0400 **Transect Length: 23.2**

Weather (Temp, Wind, Cloud Cover): 21 degrees Fahrenheit, calm and cloudy

# of deer/group	A-Female/Fawn/YM/A-Male	Perpendicular distance (yd)	**Location**
2	2 AF	43	1 Log Cabin Dr
1	1 UNK	126	21 Log Cabin Drive
2	1 AF, 1 UNK	15	761 Kent
5	2 AF, 3 F	126	41 Woodcrest
3	1 AF, 2 F	33	9859 Waterbury
1	1AM	35	2105 S. Warson